37

SANTA CLARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ENGINEER'S REPORT OF PROPOSED IMPROVEMENTS FOR LONE HILL CREEK

ZONE C-1; THE CENTRAL ZONE

TC
425
L65.E5
1961

15.87

COUNTY OF SANTA CLARA
Department of PUBLIC WORKS

JAMES B. ENOCHS - DIRECTOR OF PUBLIC WORKS

OTIS T. CALHOUN - ASST. DIRECTOR - BUILDINGS
JAMES T. POTT - ASST. DIRECTOR - HIGHWAYS

SANTA CLARA COUNTY OFFICE BLDG. • CIVIC CENTER
20 W. ROSA STREET • SAN JOSE 10, CALIFORNIA

January 31, 1961

Honorable Board of Supervisors
County of Santa Clara
20 West Rosa Street
San Jose 10, California

Gentlemen:

Transmitted herewith is the Engineer's Report on the proposed improvements for Lone Hill Creek, Project Number 5, in Zone C-1 (Central Zone) of the Santa Clara County Flood Control and Water Conservation District. This report indicates the proposed improvement for 9,400 feet of channel. The estimated total cost of these facilities is $349,450. Such costs may be financed out of zone taxes over a period of years.

It is therefore recommended that your Honorable Board hold a public hearing on these proposed improvements as required by law.

Very truly yours,

James B Enochs
J. B. ENOCHS
Director of Public Works

JBE:GHP:am
encl.

TC425L65E51961c.2

ENGINEER'S REPORT

PROPOSED IMPROVEMENTS FOR ZONE C-1

PROJECT NO. 5

LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL

AND

WATER CONSERVATION DISTRICT

Donald K. Currlin
Manager-Counsel

DEPARTMENT OF PUBLIC WORKS

James B. Enochs, Director

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ENGINEER'S REPORT
FOR THE IMPROVEMENT OF LONE HILL CREEK
PROJECT NO. 5, ZONE C-1 (CENTRAL ZONE)

INTRODUCTION

Lone Hill Creek is located south of the Cambrian area and east of Los Gatos, and has its headwaters in a short range of hills or ridges collectively known as Blossom Hill. From this hilly source the creek runs in a general northeasterly direction across Blossom Hill Road and Los Gatos-Almaden Road to its confluence with Ross Creek just west of Harwood Avenue. Lone Hill Creek has a long history of flooding, but, prior to the urban development which is rapidly spreading over the lower portions of its watershed, there was very little damage inflicted.

Along various portions of its length, farmers have constructed shallow trenches with the itent of keeping storm runoff in more or less straight lines to allow for cultivation of a maximum number of fruit trees. However, during periods of heavy rainfall, storm waters leave these channels and flow along the meandering original course of the creek. Deceived by one of these diversion trenches near Lone Hill Creek outfall, the Campbell Union School District constructed Lone Hill School almost directly in the natural path of the stream in 1955. Since that time, the stream has flooded two or three classrooms on two different occasions (December , 1955 and April, 1958). Development now underway and proposed for the near future farther upstream from Lone Hill School will place some residences and a high school in the same type of danger as the Lone Hill School.

Except for the ravines in the hills above the valley floor, no portion of the stream bed of Lone Hill Creek and its tributaries has ever been known to contain full flood flow during heavy runoff. It is therefore necessary to protect the existing and impending development by implementing this proposed flood control project on Lone Hill Creek.

This report (comprising this document and the maps and general construction plans attached hereto) shows:

1. A general description of the work proposed to be done, together with general plans, profiles, cross-sections and general specifications relating thereto, on each project constituting the improvement.

2. A general description of the land, rights of way, easements and property proposed to be taken, acquired or injured in carrying out said work.

3. Maps which show the location of each of said projects constituting the improvement, and land, rights of way, easements and property to be taken, acquired or injured in carrying out said work, and any information in regard to the same that is deemed necessary or useful.

4. An estimate of the cost of the project constituting the improvement in Zone C-1, which includes an estimate of the cost of land, rights of way, easements and property proposed to be taken, acquired or injured in carrying out said improvement, and also of all incidental expenses likely to be incurred in connection therewith, including legal, clerical, engineering, superintendence, inspection, printing and advertising, and the total amount of bonds necessary to be issued to pay for the same.

WATERSHED DESCRIPTION

The City of San Jose has begun construction on a storm drain northerly along Union Avenue to Ross Creek that will drain the 110 acres of Lone Hill Creek watershed which lies west of Union Avenue. Other local drainage projects either planned or existing around the perimeter of the watershed have reduced its boundaries to Union Avenue on the west, Los Gatos-Almaden Road on the north and Harwood Avenue on the east as far south as Blossom Hill Road. At Blossom Hill Road a triangular area comprising 115 acres, lying south of Blossom Hill Road and east of Harwood Road, will drain into Lone Hill Creek through a City of San Jose Storm Drain. Blossom Hill Ridge forms the southerly boundary of the watershed. The watershed as described has a total area of 1,050 acres.

Along the top of Blossom Hill Ridge the average elevation is 900 feet, and from here the ground drops off rapidly to an average elevation of 360 feet at the edge of the valley floor, which is only 2,500 feet away. Although there are quite a few oak trees in this area, the overall vegetal cover is a rather small percentage of the total area.

Lone Hill Creek has eight tributaries along the face of Blossom Hill. Rural and urban development over the years has changed the course of all but two of the most easterly of these tributaries. These two streams traverse a well-defined course and join into one stream bed about 1,200 feet south of Blossom Hill Road. This stream bed is known as the South Branch of Lone Hill Creek.

Watershed Development

The upper reaches of the Lone Hill Creek watershed are so steep that high density residential development is unlikely. From the base of the hills to Blossom Hill Road present zoning is for 8,000 to 10,000 square foot lots. North of Blossom Hill Road all residential development will probably be on 6,000 square foot lots. Future scattered hillside lots are zoned for one to three acres each.

There will be at least two elementary school sites in the watershed, and a fifty-acre high school site is now being developed by the Campbell Union High School District. The site is bordered on the north by Los Gatos-Almaden Road, on the west by Leigh Avenue, on the south by the P.G.& E. transmission line easement, and on the east by a line approximately 250 feet east of the proposed alignment for Lone Hill Creek. No commercial zoning presently exists within the watershed.

BASIC CRITERIA

The criteria used in establishing preliminary design of structures, channels, and grades for the Lone Hill Creek project are shown in the following table:

Protection Level (design storm)	
Open Channels	50-year frequency
Closed Conduits	10-year frequency
Roughness Coefficients	
Concrete-lined Channels	n = 0.015 (Manning)
Large Reinforced Concrete Pipes	n = 0.013 (Manning)
Freeboard	
Subcritical Velocity (North of Los Gatos-Almaden Road)	2 feet
Supercritical Velocity	Varies to contain energy grade line within channel
Maximum Velocity	20 fps

Peak Flow Computation
Rational Method
C = 0.40 North of Blossom Hill Road and
0.30 South of Blossom Hill Road
I Based on San Jose rainfall curve multiplied
by a converstion factor of 1.5

The storage capacity of gutters and storm drains, in the 440 acres of potential high to medium density residential development, was considered when computing the peak runoff used in ascertaining channel section design.

Plate 1 shows the watershed area and calculated peak runoff flows at each of several key points along the various reaches of the project.

PROJECT DESCRIPTION

Concrete-lined channels, supplemented in some locations with reinforced concrete pipe, are proposed throughout the Lone Hill Creek project because of excessive velocities in all reaches south of Los Gatos-Almaden Road, and because of the deficiency in grade north of Los Gatos-Almaden Road.

The improvement at the Ross Creek confluence consists of sacked concrete revetment and other minor revisions. A vertical-walled concrete-lined section is proposed from Los Gatos-Almaden Road to Ross Creek to conserve right of way and minimize depth. A culvert across the Lone Hill Creek portion of the confluence structure is required, in order to allow passage of maintenance equipment along the Ross Creek access road.

As shown on the plans, a concrete-lined trapezoidal channel is proposed for the reach between Los Gatos-Almaden Road and Blossom Hill Road. However, the northerly 1,100 feet of this reach is now straddled by the Campbell Union High School site, and the school authorities have decided to place this portion of the creek in underground pipe to avoid severance of the athletic field. The Campbell Union High School District has entered into an agreement to pay for the excess cost of such pipe over the expenditure that would have been made by the District for installation of the concrete-lined channel.

As previously stated, the most westerly tributary has been omitted from the Lone Hill Creek project, because it would be more economical and practical to divert it straight northward along Union Avenue to Ross Creek. Runoff from the remaining five tributaries which formerly crossed Blossom Hill Road at various points, and then converged on the main stream of Lone Hill Creek (approximately 200 feet south of Los Gatos-Almaden Road) will now be collected, before they can cross Blossom Hill Road, in what has been termed the West Branch of Lone Hill Creek. This branch will run parallel to, and a lot depth southerly of Blossom Hill Road in a due easterly direction to a confluence with the South Branch. Both branches will then turn north, cross Blossom Hill Road, and continue along a realignment, designed to conform with proposed urban development, to an existing culvert in Los Gatos-Almaden Road. The alignment then approximately follows the existing channel to its confluence with Ross Creek.

At the upstream end of the west branch, and throughout the South Branch, it is proposed to use pipe in lieu of concrete-lined channel. Due to the steep grades available, large quantities of water can be transported in pipe of moderate diameter. Thus savings can be realized in both right of way acquisition and construction cost. Some portions of the proposed improvement upstream from Blossom Hill Road are included for planning purposes only.

Staging of the Project

Present plans are to construct Lone Hill Creek in several stages, the first stage to be the reach from Los Gatos-Almaden Road to Ross Creek, including minor improvements of Ross Creek itself. Additional stages will then progress upstream as funds become available. However, school and urban development along the reach from Blossom Hill Road to Los Gatos-Almaden Road may precipitate installation of this stage, if not at the same time, soon after the stage north of Los Gatos-Almaden Road. Also, several tentative plans for residential development south of Blossom Hill Road have been presented for consideration to the Town Engineer of Los Gatos. Should any of these plans become firm, it may be necessary to accelerate construction plans to stay abreast of the proposed development. In addition to providing needed drainage and flood protection, such action will avoid the increase in cost which comes with constructing a project after the working area has become constricted by adjacent development.

Supplementary Maintenance

In addition to the construction shown on the plans, it will also be necessary to construct, on a maintenance basis, various erosion control facilities in several of the ravines in the upper reaches of the watershed. This will prevent high maintenance costs which follow the deposition of silt and detritus in improved downstream channels and pipes.

PROJECTS COSTS

In the following table the construction costs for all stages are based on current prices. Items included in contingencies are right of way, engineering, advertising, legal fees, and all other incidentals.

Stage No.	Stage Limits	Const. Cost	Conting. Cost	Total Cost
I	Los Gatos-Almaden Road to Ross Cr.	$ 113,000	27,400	140,400
II	Blossom Hill Road to Los Gatos-Almaden Road	65,700	13,140	78,840
III	Beginning of South Branch to confluence with West Branch	27,440	5,490	32,930
IIIa	Beginning West Branch to South Branch	81,070	16,210	97,280
	Total	$ 287,210	62,240	349,450

Included in the total for Stage I are the costs for improvements at the Ross Creek confluence.

No cost estimates are presently available for the erosion control projects which may be necessary in the upper ravines of the Lone Hill Creek tributaries. After the final stages of the herein proposed projects have been completed, it is recommended that needed check dams be constructed on a maintenance basis. Construction of such erosion control structures can be delayed for a few years until financing is available.

FINANCING

Since the Central Zone has an assessed valuation of $455,773,290 and an adequate source of revenue from existing tax assessment, it is recommended that Lone Hill Creek construction be staged in such manner as to finance it on a pay-as-you-go basis from direct taxation rather than with a bond issue. Construction of the first unit of the project (Stage I) may be financed by a 3.1¢ per $100 tax assessment within the zone. Some reaches upstream from Blossom Hill Road may be financed out of drainage fees from developers, or by some other means.

CONCLUSIONS AND RECOMMENDATIONS

Existing channel and culvert capacities on Lone Hill Creek and its tributaries are exceeded by the runoff from the heavy rainfall experienced on this watershed. An elementary school is now in the path of the main channel, and a proposed Campbell Union High School is in the path of the main channel and two tributaries. Other proposed residential development is located within the natural channels of all tributaries of Lone Hill Creek. Action in the near future is thus required to prevent flood damage to existing and proposed development.

The steep terrain causes a combination of higher runoff and severe erosion which necessitates the use of concrete pipe and concrete-lined channels. Such facilities are initially more expensive than earth channels, but require narrower rights of way, eliminate erosion, and reduce maintenance costs.

Since the project is located in the Central Zone, which has a high assessed valuation, it can be constructed without a great burden upon the taxpayers. Also, the subsequent improvement of land values in the area will enhance the value of the entire zone. It is therefore recommended that the Board of Supervisors hold a public hearing as required by law on this report and the accompanying plans, and that all necessary action be taken thereafter to expedite construction of the project.

LONE HILL CREEK
HYDROLOGIC DATA

Location	Watershed Area	Design Runoff
1. West Branch at Las Flores Lane	65 ac.	41 cfs
2. West Branch at South Branch Junction	278 ac.	142 cfs
3. South Branch - 1,400' South of Blossom Hill Road	170 ac.	96 cfs
4. South Branch at West Branch Junction	308 ac.	166 cfs
5. Main Branch at Blossom Hill Road	550 ac.	300 cfs
6. Junction San Jose Storm Drain - Main Branch 500' North of Blossom Hill Road	690 ac.	349 cfs
7. At northerly end of P.G.& E. right of way	750 ac.	374 cfs
8. Main Branch at Los Gatos-Almaden Road	990 ac.	470 cfs
9. Main Branch at Ross Creek Confluence	1,010 ac.	475 cfs

PLATE 1

MAP AND GENERAL CONSTRUCTION PLANS

OF

LONE HILL CREEK, PROJECT NO. 5

IN

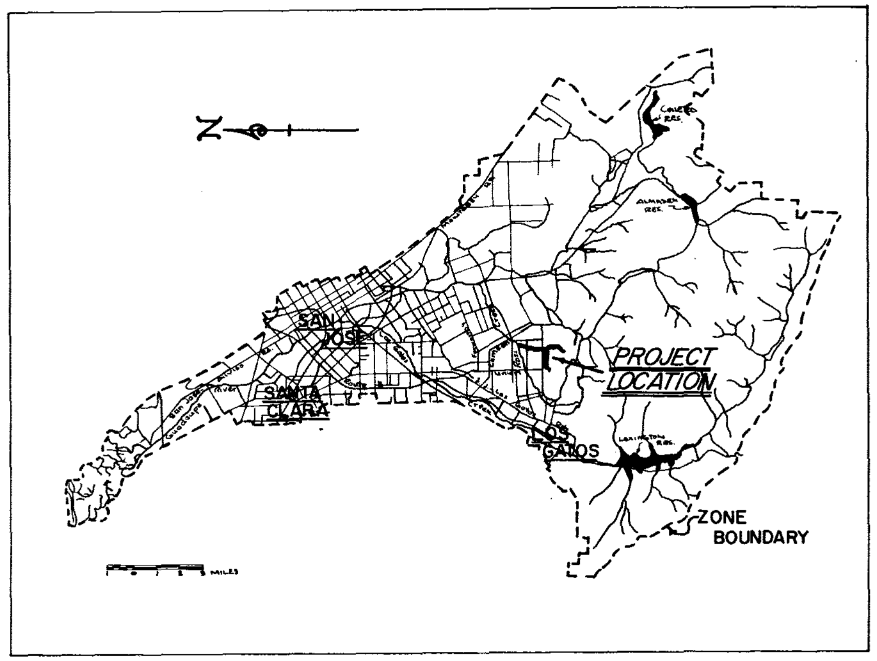
ZONE C-1 "CENTRAL"

OF THE

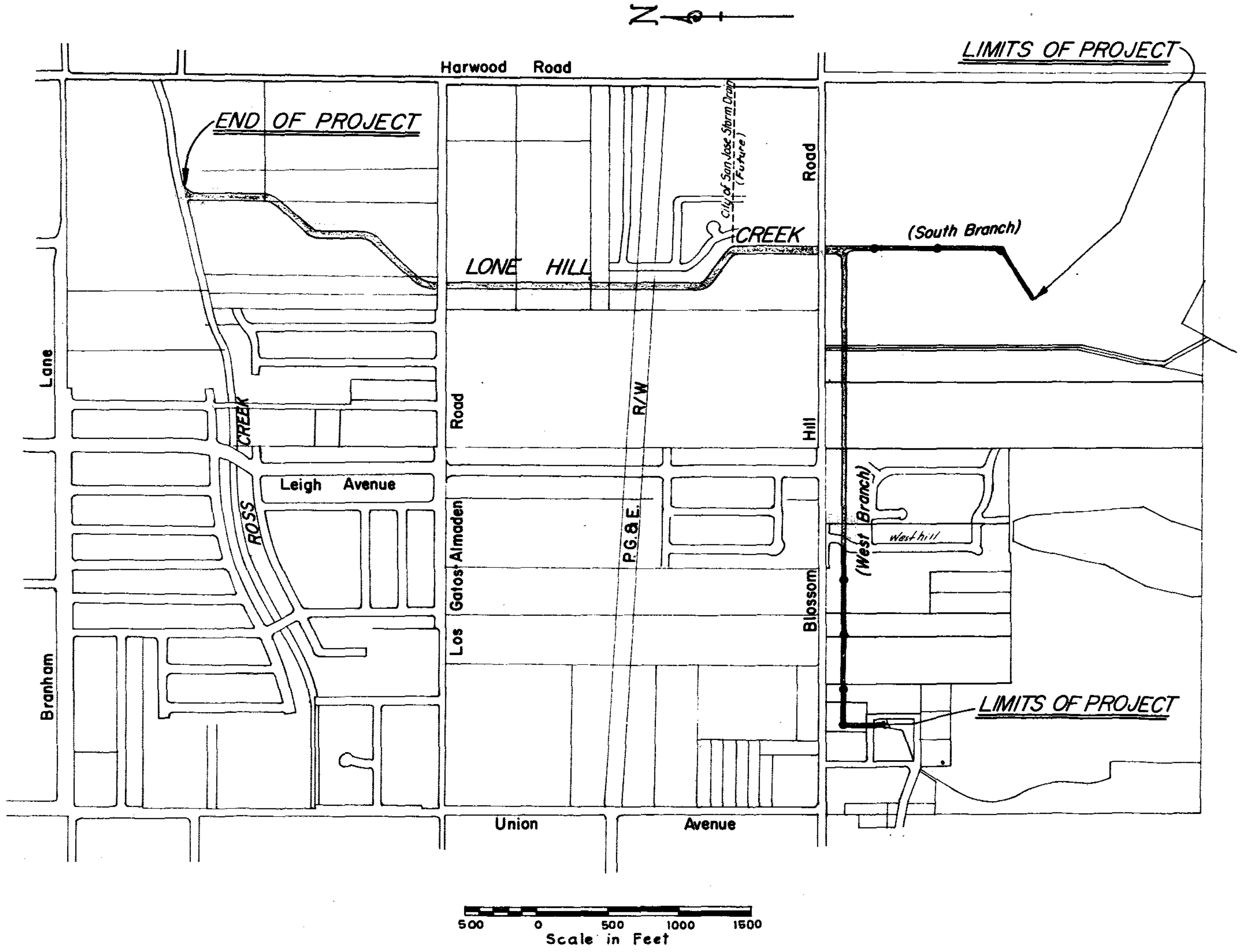
SANTA CLARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

SANTA CLARA COUNTY, CALIFORNIA

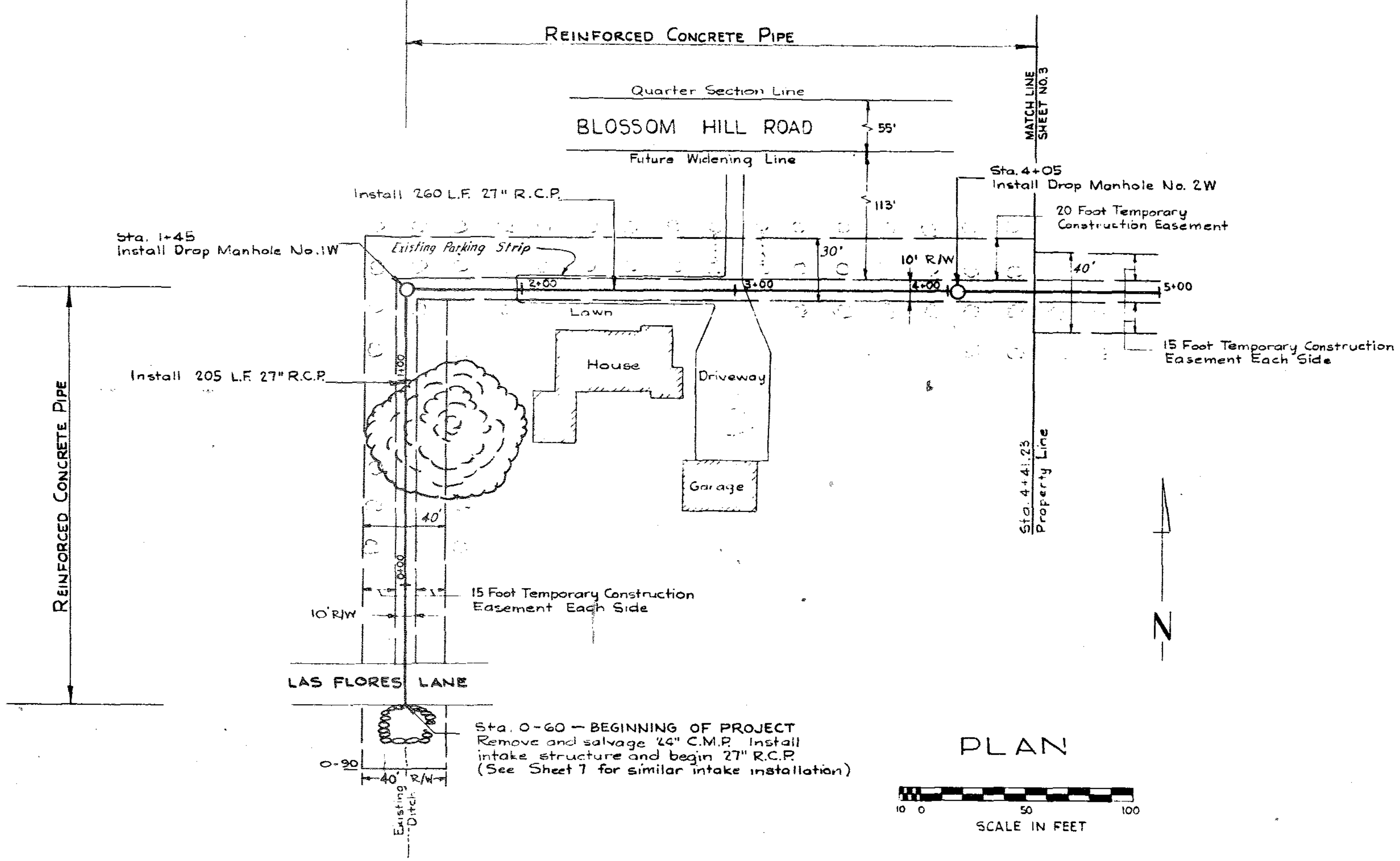
SCALE AS SHOWN



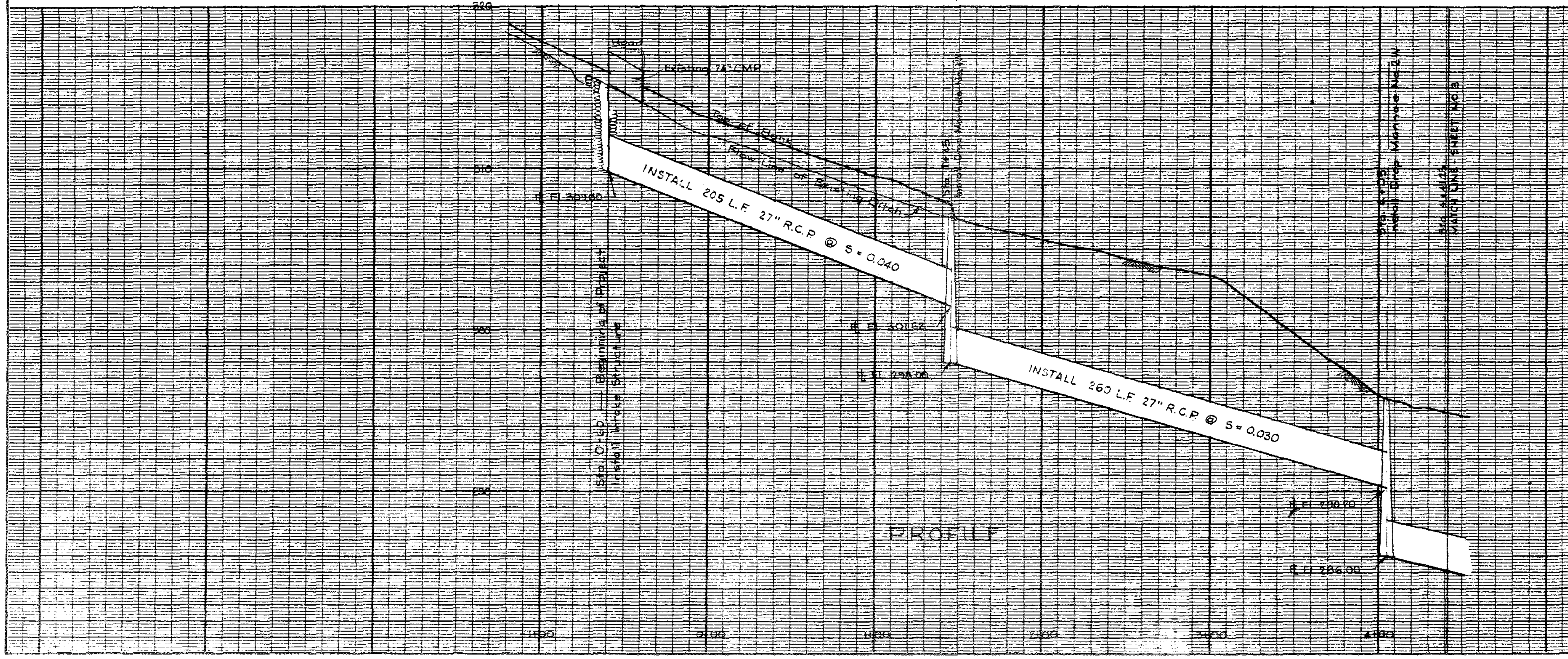
LOCATION MAP



PLATE


Reinforced Concrete Pipe
Quarter Section Line
BLOSSOM HILL ROAD
55'
Future Widening Line
MATCH LINE SHEET NO. 3
Install 260 L.F. 27" R.C.P.
113'
Sta. 4+05
Install Drop Manhole No. 2W
20 Foot Temporary Construction Easement
Sta. 1+45
Install Drop Manhole No. 1W
Existing Parking Strip
2+00
3+00
4+00
5+00
30'
10' R/W
40'
Lawn
House
Driveway
Garage
15 Foot Temporary Construction Easement Each Side
Install 205 L.F. 27" R.C.P.
1+00
0+00
40'
Reinforced Concrete Pipe
Sta. 4+41.23 Property Line
N
10' R/W
15 Foot Temporary Construction Easement Each Side
LAS FLORES LANE
Sta. 0-60 — BEGINNING OF PROJECT
Remove and salvage 24" C.M.P. Install intake structure and begin 27" R.C.P.
(See Sheet 7 for similar intake installation)
0-20
40'
R/W
Existing Ditch
10 0 50 100
SCALE IN FEET

PLAN


320
310
300
290
Road
Existing 24" CMP
Top of Bank
Flow Line of Existing Ditch
INSTALL 205 L.F. 27" R.C.P. @ S = 0.040
℄ El. 309.80
Sta. 1+45 Install Drop Manhole No. 1W
℄ El. 301.52
℄ El. 298.00
Sta. 0-60 — Beginning of Project
Install Intake Structure
INSTALL 260 L.F. 27" R.C.P. @ S = 0.030
Sta. 4+05 Install Drop Manhole No. 2W
Sta. 4+41.23 MATCH LINE - SHEET NO. 3
℄ El. 290.20
℄ El. 286.00
1+00
2+00
3+00
4+00

PROFILE

NOTES

Basis of Elevations: 1954 U.S.G.S.
Datum Based on 1929 S.L.D.
All PCC Lined Channels to be fenced through developed areas.

REV. NO.	APPROVED	DATE	CHANGE

MAP AND GENERAL CONSTRUCTION
ZONE C-I (CENTRAL) PROJECT I
LONE HILL CREEK

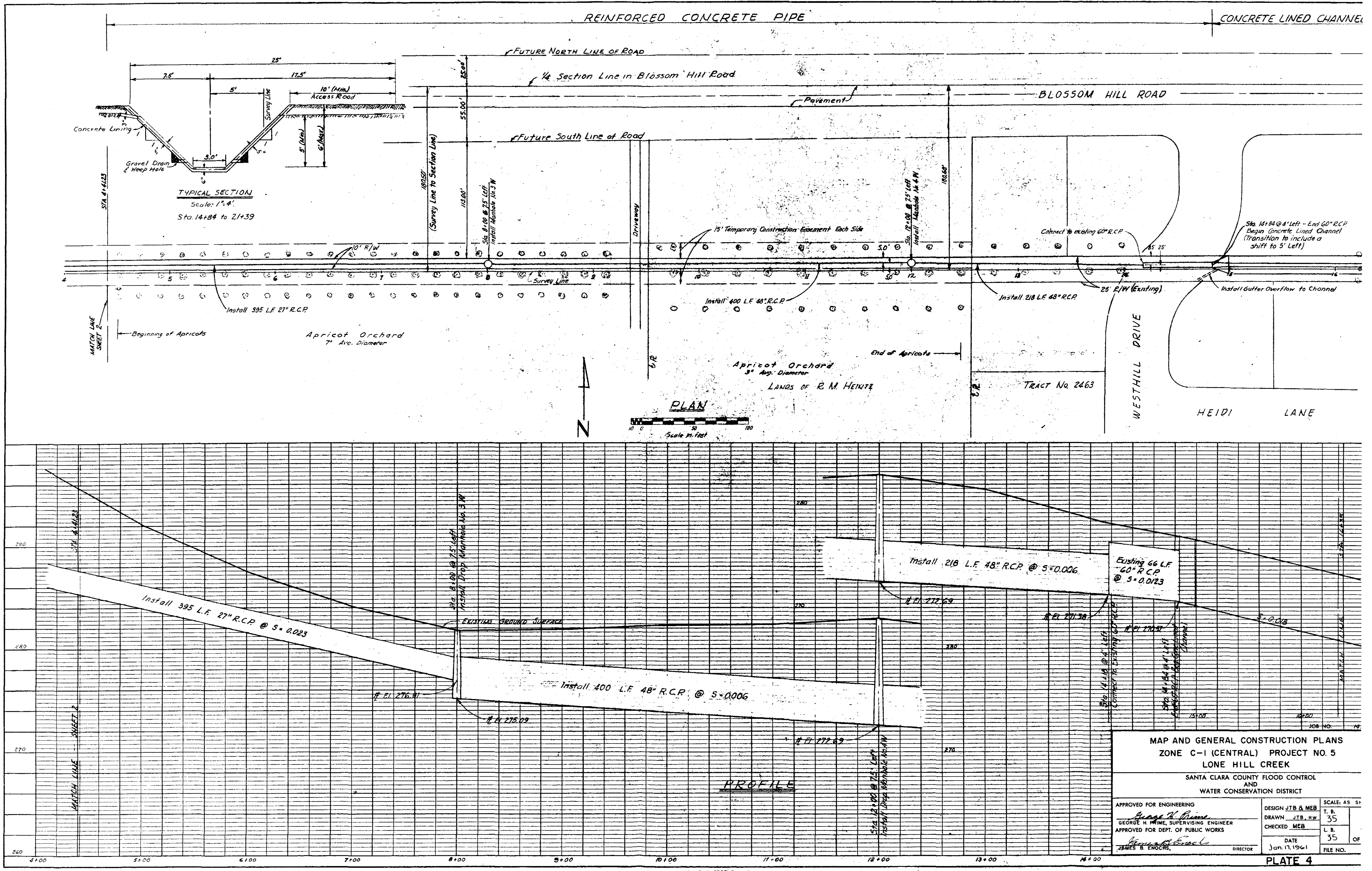
SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN JTB
DRAWN JTB
CHECKED MEB

DATE
Jan. 17, 1961

PLATE 3



MAP AND GENERAL CONSTRUCTION PLANS
ZONE C-1 (CENTRAL) PROJECT NO. 5
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

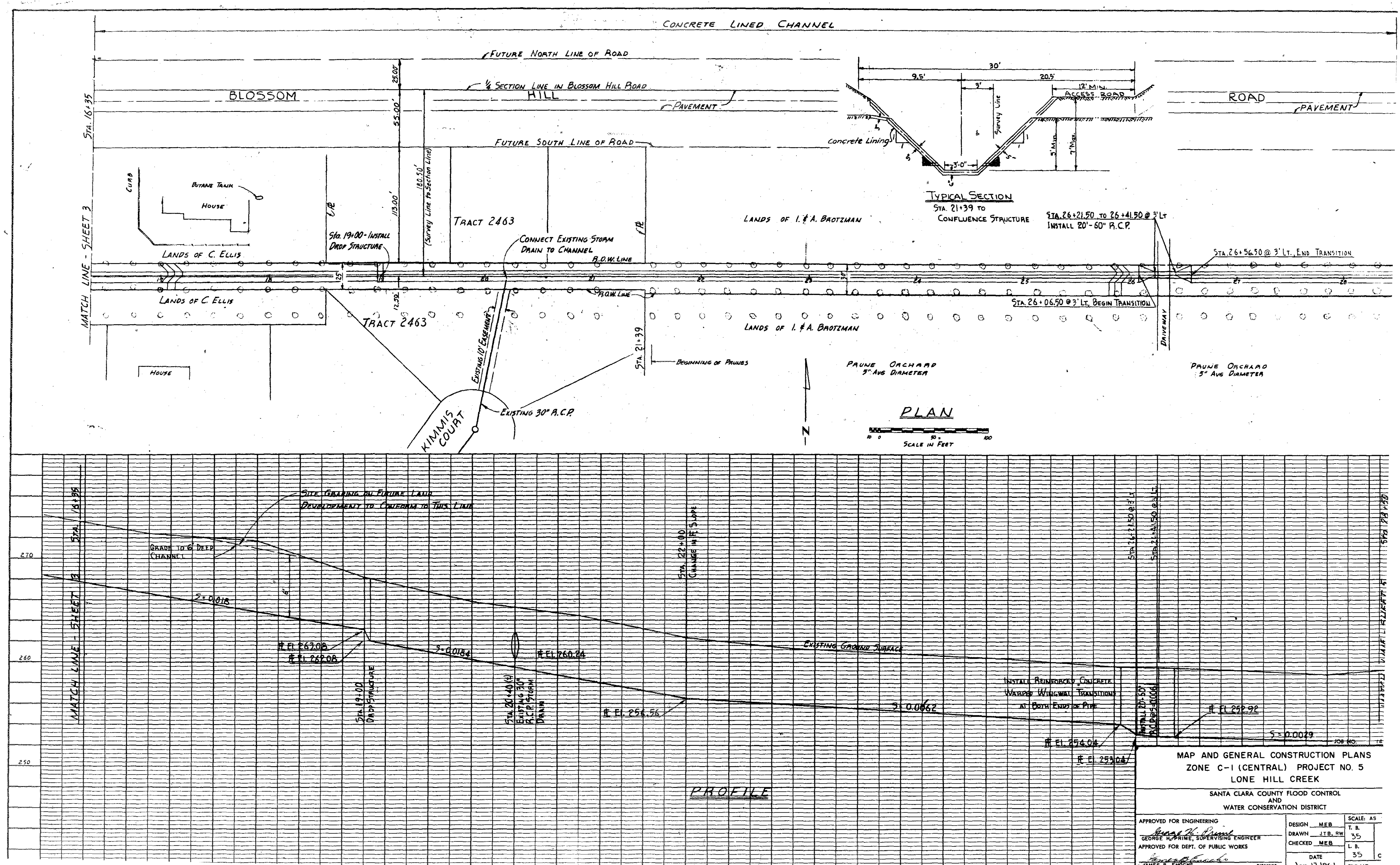
APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN JTB & MEB
DRAWN JTB, RW
CHECKED MEB
DATE Jan. 17, 1961

SCALE: AS SH
T. B. 35
L. B. 35
OF
FILE NO.

PLATE 4

PLATE 1-PLAN-PROFILE-F.A.S.
CLEARPRINT PAPER CO., S.F. CAL.
No. 1000H-1


CONCRETE LINED CHANNEL
FUTURE NORTH LINE OF ROAD
¼ SECTION LINE IN BLOSSOM HILL ROAD
BLOSSOM
HILL
ROAD
PAVEMENT
PAVEMENT
FUTURE SOUTH LINE OF ROAD
STA. 16+35
25.00'
55.00'
113.00'
180.50' (Survey Line to Section Line)
MATCH LINE - SHEET 3
CURB
BUTANE TANK
HOUSE
HOUSE
LANDS OF C. ELLIS
LANDS OF C. ELLIS
Sta. 19+00 - INSTALL DROP STRUCTURE
TRACT 2463
TRACT 2463
CONNECT EXISTING STORM DRAIN TO CHANNEL
R.O.W. LINE
R.O.W. LINE
25
12.59
30'
17
18
19
20
21
22
23
24
25
26
27
28
EXISTING 10' EASEMENT
EXISTING 30" R.C.P.
KIMMIS COURT
STA. 21+39
BEGINNING OF PRUNES
LANDS OF I. & A. BROTZMAN
LANDS OF I. & A. BROTZMAN
PRUNE ORCHARD 5" AVG DIAMETER
PRUNE ORCHARD 5" AVG DIAMETER
DRIVEWAY
STA. 26+21.50 TO 26+41.50 @ 3' LT
INSTALL 20'-60" R.C.P.
STA. 26+56.50 @ 3' LT., END TRANSITION
STA. 26+06.50 @ 3' LT., BEGIN TRANSITION
30'
9.5'
20.5'
3'
12' MIN.
ACCESS ROAD
Survey Line
Concrete Lining
3'-0"
5' Min.
7' Max.
TYPICAL SECTION
STA. 21+39 TO CONFLUENCE STRUCTURE
PLAN
N
10 0 50 100
SCALE IN FEET
SITE GRADING ON FUTURE LAND DEVELOPMENT TO CONFORM TO THIS LINE
GRADE TO 6' DEEP CHANNEL
MATCH LINE - SHEET 3 STA. 16+35
270
260
250
6'
S=0.018
℄ EL. 263.08
℄ EL. 262.08
S=0.0184
℄ EL. 260.84
STA. 19+00 DROP STRUCTURE
STA. 20+40(±) EXISTING 30" R.C.P. STORM DRAIN
℄ EL. 256.56
STA. 22+00 CHANGE IN ℄ SLOPE
EXISTING GROUND SURFACE
S=0.0062
INSTALL REINFORCED CONCRETE WARPED WINGWALL TRANSITIONS AT BOTH ENDS OF PIPE
STA. 26+21.50 @ 3' LT
STA. 26+41.50 @ 3' LT
INSTALL 20'-60" R.C.P. @ S=0.0061
℄ EL. 254.04
℄ EL. 253.04
℄ EL. 252.92
S=0.0029
MATCH LINE SHEET 5 STA. 28+50
PROFILE
25+00
26+00

JOB NO. 14

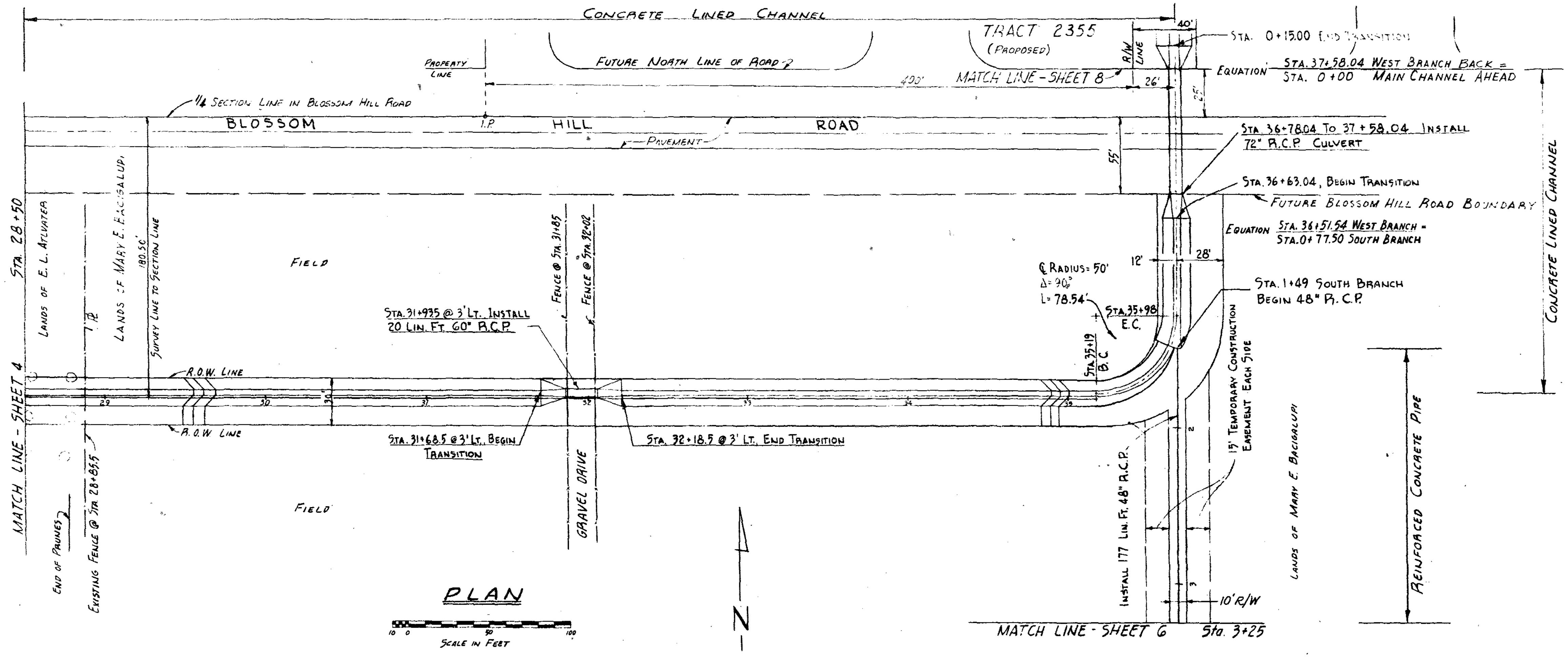
MAP AND GENERAL CONSTRUCTION PLANS
ZONE C-1 (CENTRAL) PROJECT NO. 5
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

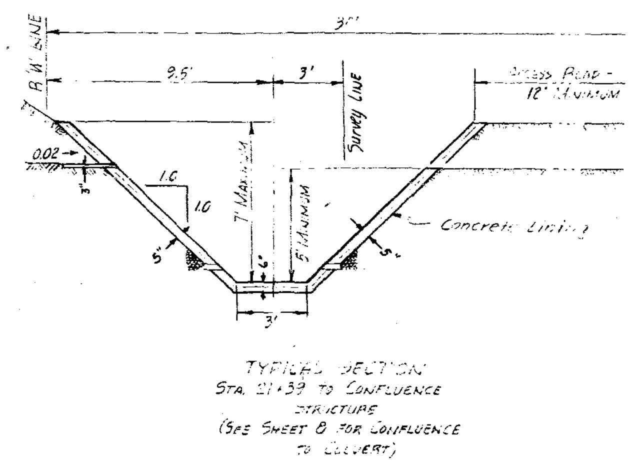
APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN MEB
DRAWN JTB, RW
CHECKED MEB
DATE Jan 17, 1961

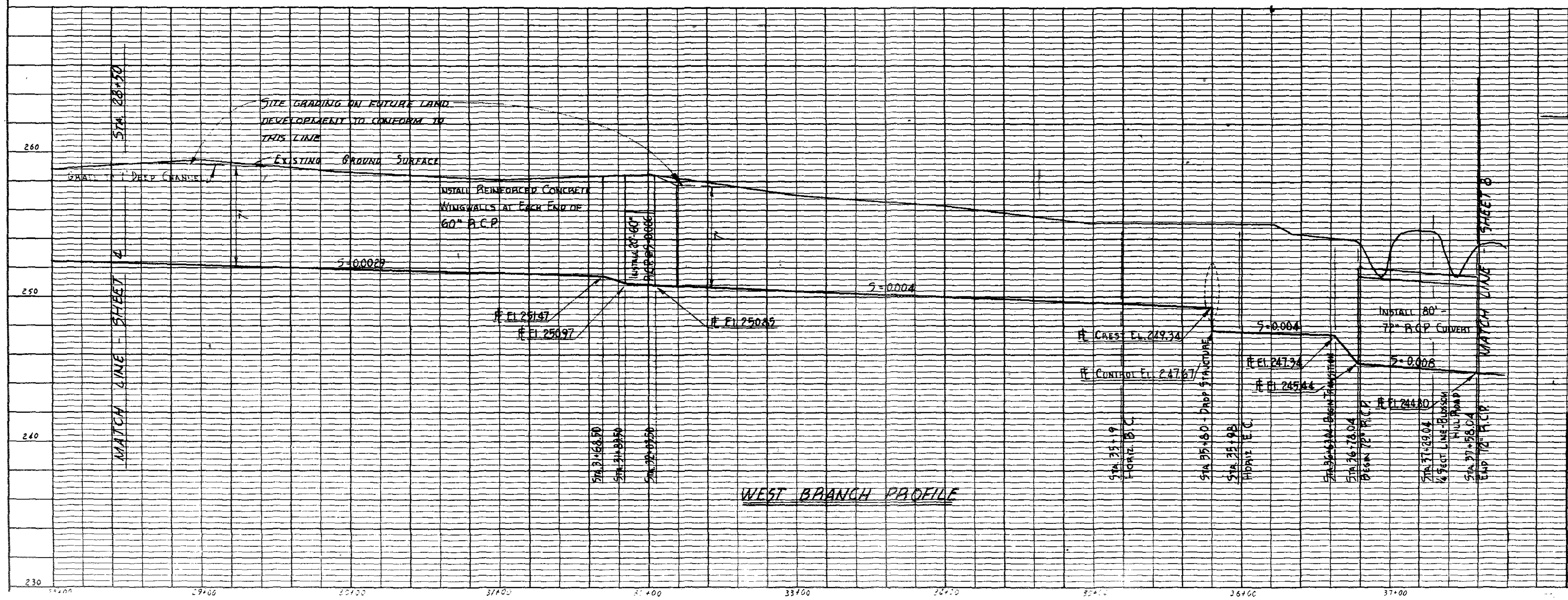
SCALE: AS
T. B. 35
L. B. 35
FILE NO.
C


CONCRETE LINED CHANNEL
FUTURE NORTH LINE OF ROAD
PROPERTY LINE
TRACT 2355 (PROPOSED)
40'
STA. 0+15.00 END TRANSITION
R/W LINE
MATCH LINE - SHEET 8
26'
25'
EQUATION STA. 37+58.04 WEST BRANCH BACK = STA. 0+00 MAIN CHANNEL AHEAD
400'
1/4 SECTION LINE IN BLOSSOM HILL ROAD
BLOSSOM HILL ROAD
I.P.
PAVEMENT
STA. 36+78.04 TO 37+58.04 INSTALL 72" R.C.P. CULVERT
55'
STA. 36+63.04, BEGIN TRANSITION
FUTURE BLOSSOM HILL ROAD BOUNDARY
EQUATION STA. 36+51.54 WEST BRANCH = STA. 0+77.50 SOUTH BRANCH
12'
28'
℄ RADIUS = 50'
Δ = 90°
L = 78.54'
STA. 35+98 E.C.
STA. 35+19 B.C.
STA. 1+49 SOUTH BRANCH BEGIN 48" R.C.P.
15' TEMPORARY CONSTRUCTION EASEMENT EACH SIDE
CONCRETE LINED CHANNEL
STA. 28+50
LANDS OF E. L. ATWATER
LANDS OF MARY E. BACIGALUPI
180.50'
SURVEY LINE TO SECTION LINE
FIELD
STA. 31+93.5 @ 3' LT. INSTALL 20 LIN. FT. 60" R.C.P.
FENCE @ STA. 31+85
FENCE @ STA. 32+02
R.O.W. LINE
29
30
31
32
33
34
35
MATCH LINE - SHEET 4
STA. 31+68.5 @ 3' LT. BEGIN TRANSITION
STA. 32+18.5 @ 3' LT. END TRANSITION
END OF PRUNES
EXISTING FENCE @ STA. 28+85.5
FIELD
GRAVEL DRIVE
INSTALL 177 LIN. FT. 48" R.C.P.
LANDS OF MARY E. BACIGALUPI
REINFORCED CONCRETE PIPE
10' R/W
N
MATCH LINE - SHEET 6
Sta. 3+25
10 0 50 100
SCALE IN FEET

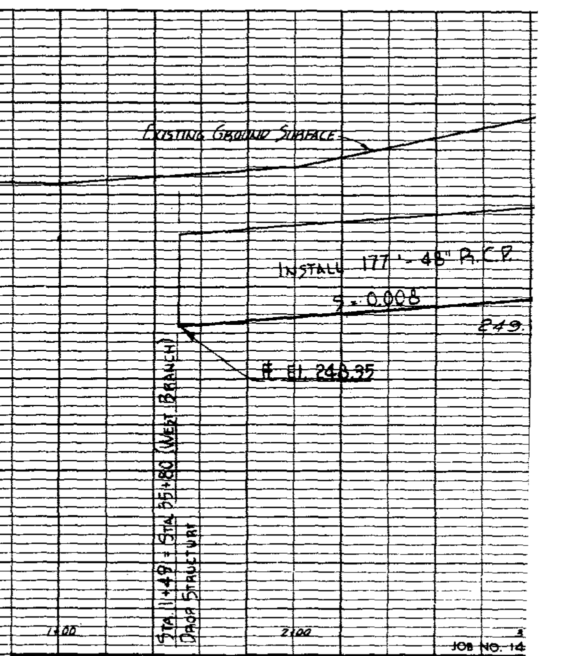
PLAN



TYPICAL SECTION
STA. 21+39 TO CONFLUENCE STRUCTURE
(SEE SHEET 8 FOR CONFLUENCE TO CULVERT)



WEST BRANCH PROFILE


EXISTING GROUND SURFACE
INSTALL 177' - 48" R.C.P.
S = 0.008
249.
℄ EL. 248.35
STA. 1+49 = STA. 35+80 (WEST BRANCH) DROP STRUCTURE
1+00
2+00
JOB NO. 14

MAP AND GENERAL CONSTRUCTION PLANS
ZONE C-1 (CENTRAL) PROJECT NO. 5
LONE HILL CREEK

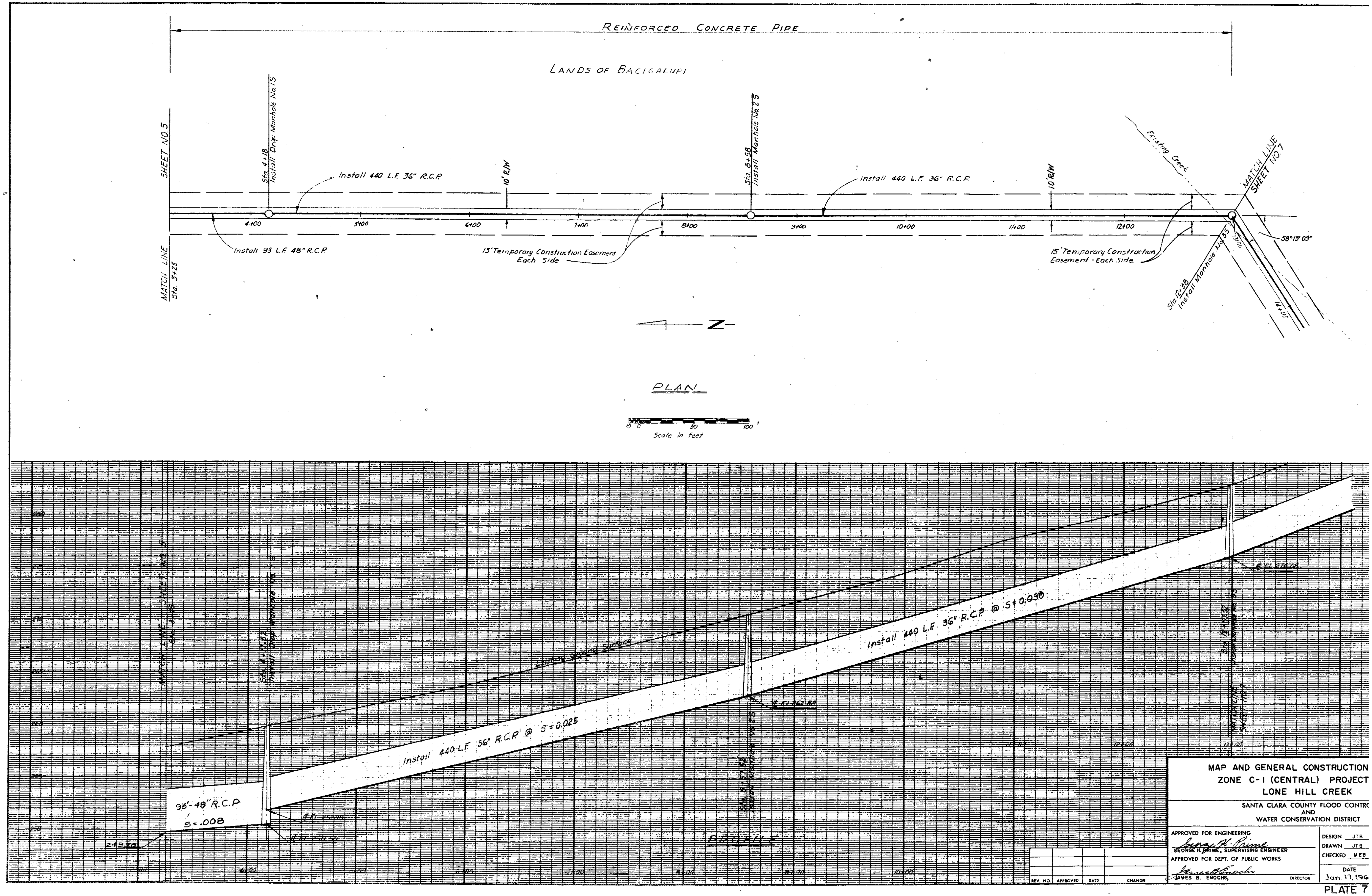
SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN	MEB
DRAWN	JTB, RW
CHECKED	MEB
DATE	Jan. 17, 1961

SCALE:
T. B. 35
L. B. 35
FILE NO

PLATE 6



MAP AND GENERAL CONSTRUCTION
ZONE C-1 (CENTRAL) PROJECT
LONE HILL CREEK

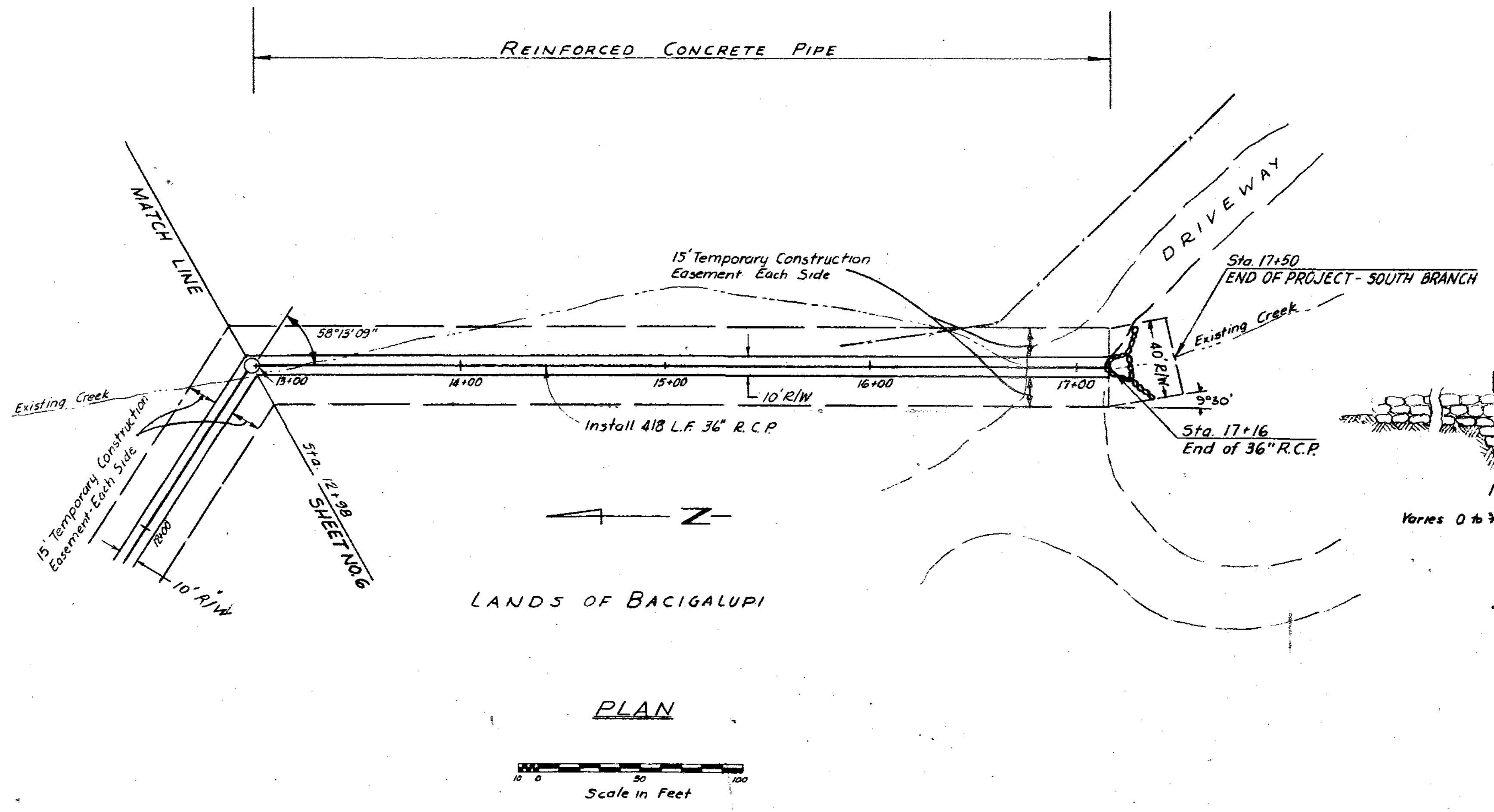
SANTA CLARA COUNTY FLOOD CONTRO
AND
WATER CONSERVATION DISTRICT

APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

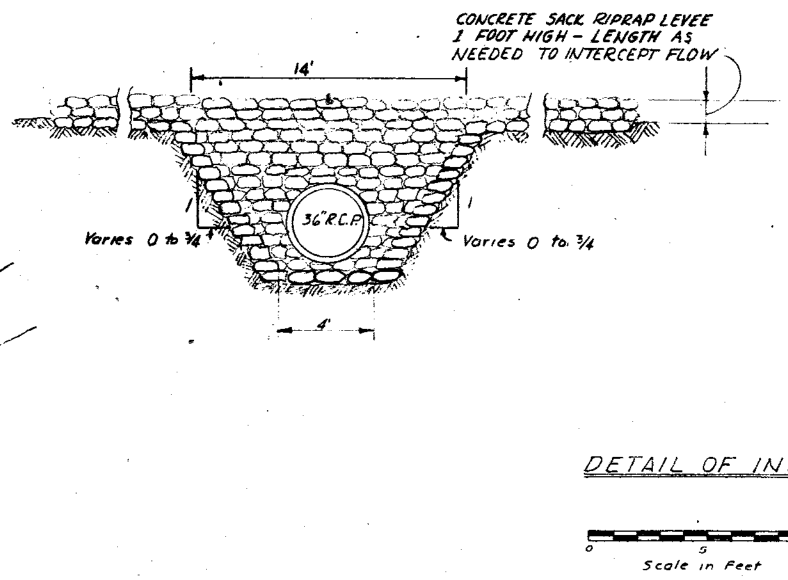
DESIGN JTB
DRAWN JTB
CHECKED MEB

DATE
Jan. 17, 196

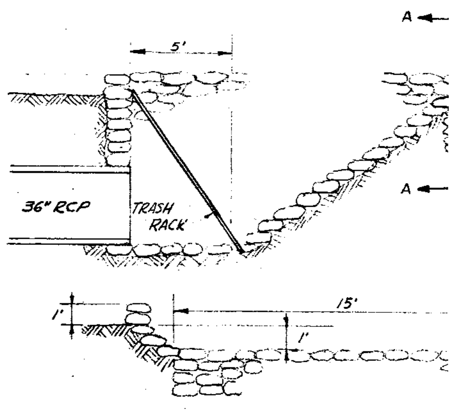
PLATE 7



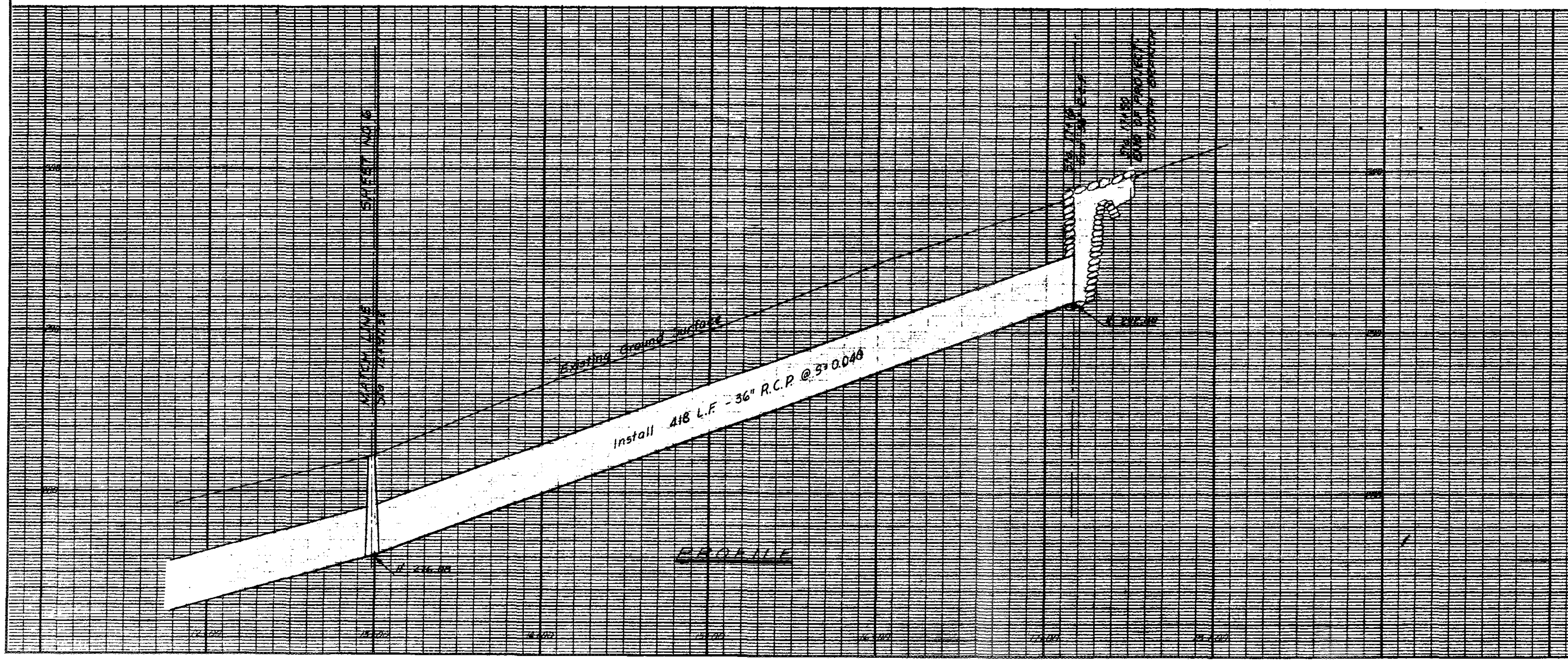
PLAN



DETAIL OF INLET



SECTION A-A


SHEET NO. 6
MATCH LINE
Existing Ground Surface
Install 418 L.F. - 36" R.C.P. @ S = 0.048
END OF PROJECT SOUTH BRANCH

PROFILE

MAP AND GENERAL CONSTRUCTION
ZONE C-I (CENTRAL) PROJECT
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

REV. NO.	APPROVED	DATE	CHANGE

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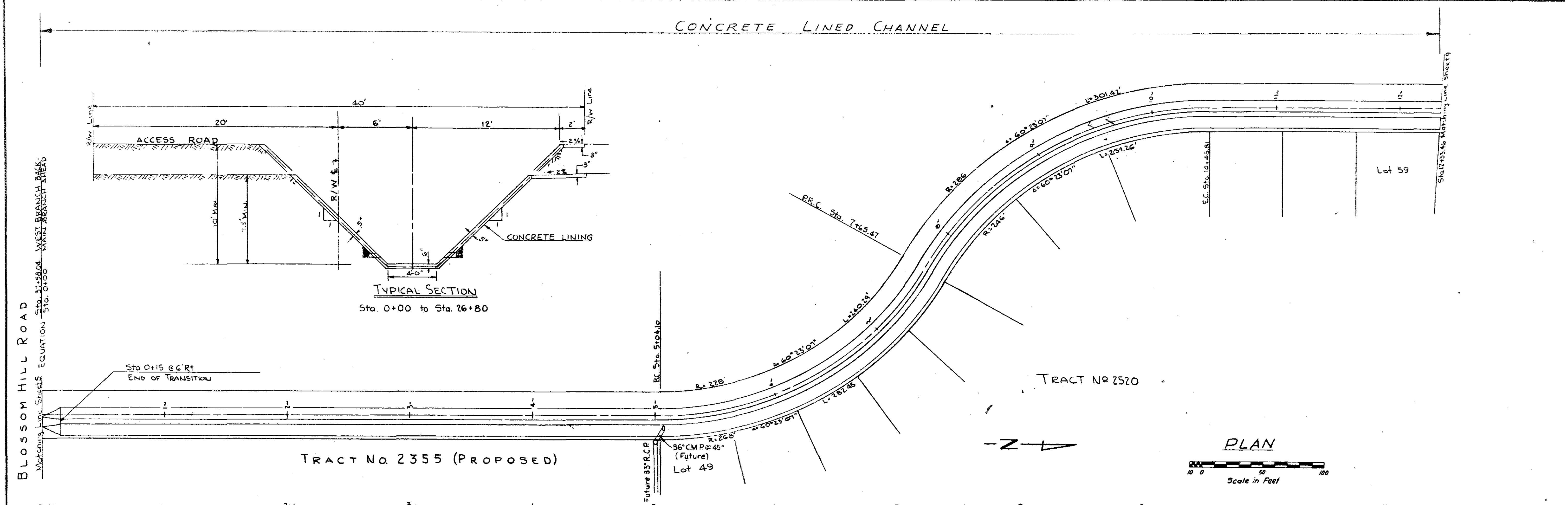
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN JTB
DRAWN JTB
CHECKED MEB
DATE
Jan. 17, 1961

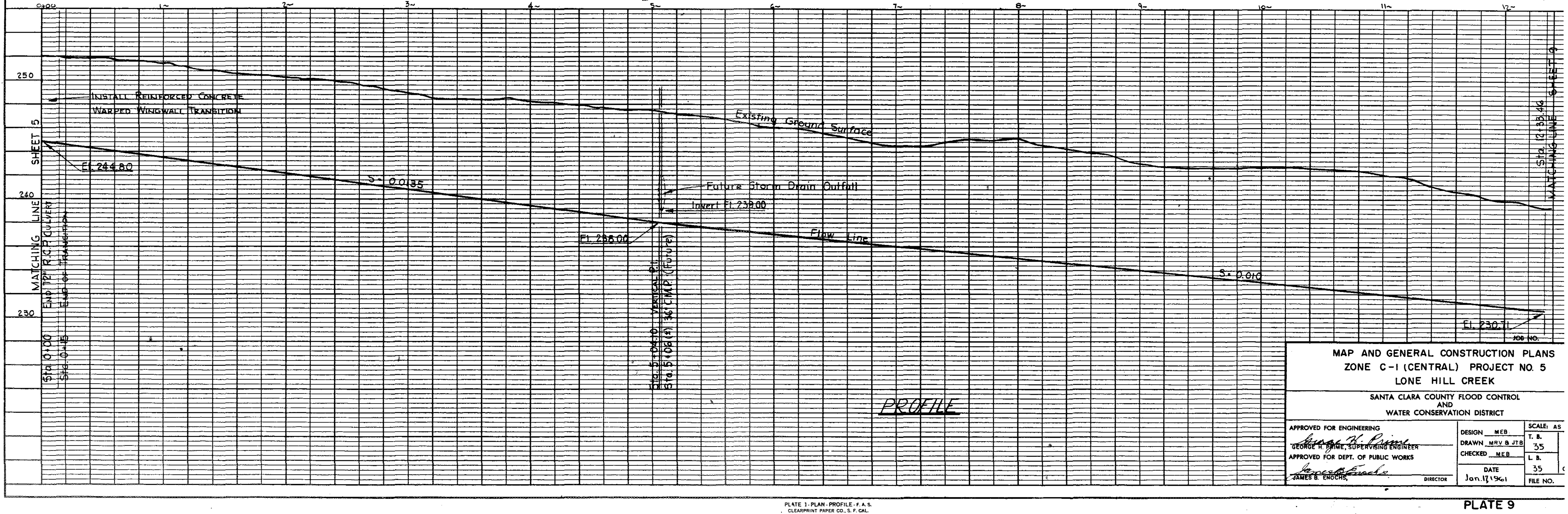
PLATE 8



TYPICAL SECTION

Sta. 0+00 to Sta. 26+80

PLAN



PROFILE

MAP AND GENERAL CONSTRUCTION PLANS
ZONE C-1 (CENTRAL) PROJECT NO. 5
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

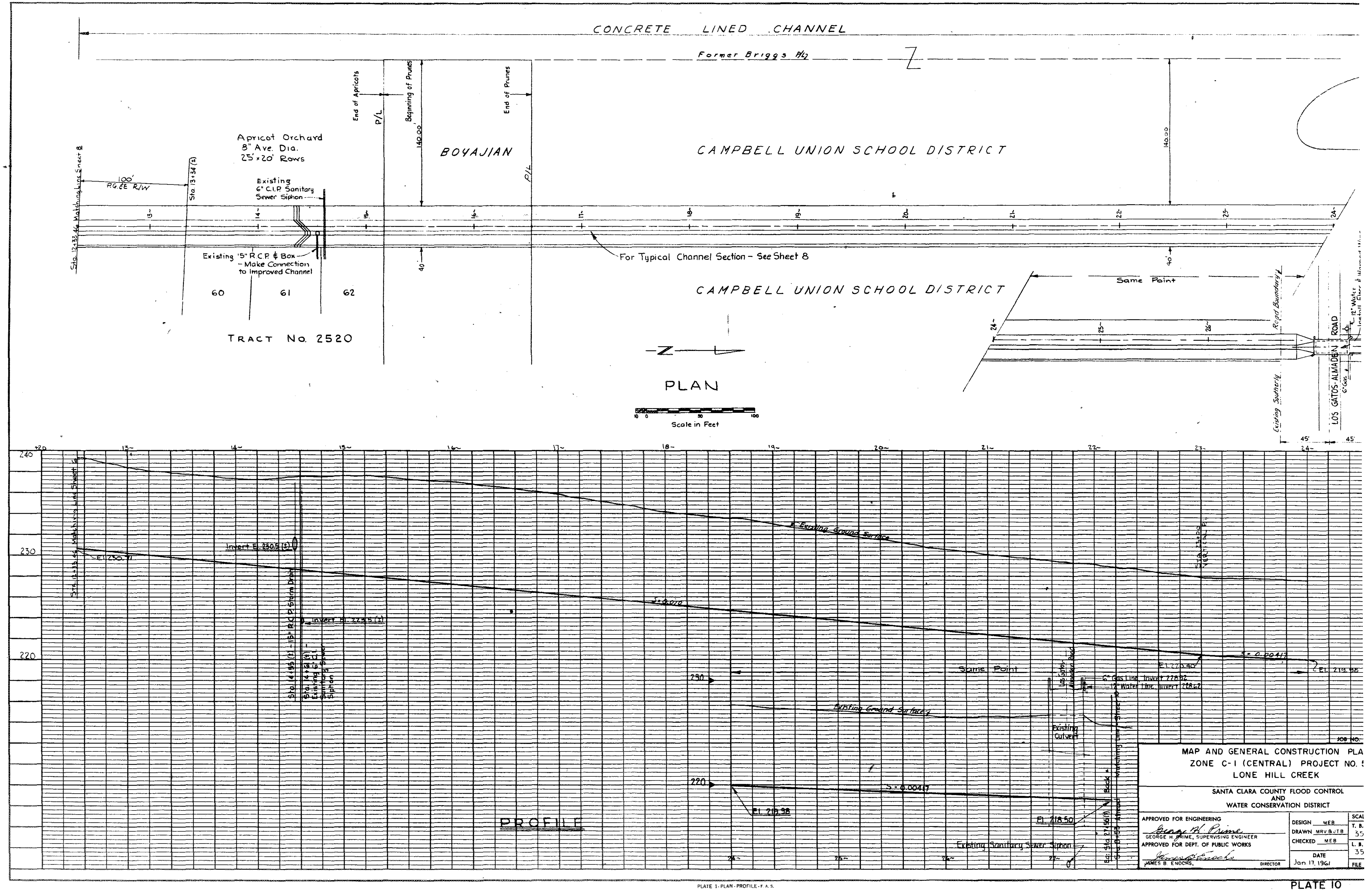
APPROVED FOR ENGINEERING
George H. Prime
GEORGE H. PRIME, SUPERVISING ENGINEER
APPROVED FOR DEPT. OF PUBLIC WORKS
James B. Enochs
JAMES B. ENOCHS, DIRECTOR

DESIGN	MEB
DRAWN	MRV & JTB
CHECKED	MEB
DATE	Jan. 17, 1961

SCALE: AS	
T. B.	35
L. B.	35
FILE NO.	

PLATE 1 - PLAN - PROFILE - F. A. S.
CLEARPRINT PAPER CO., S. F. CAL.
No. 1000H-1

PLATE 9



JOB NO.

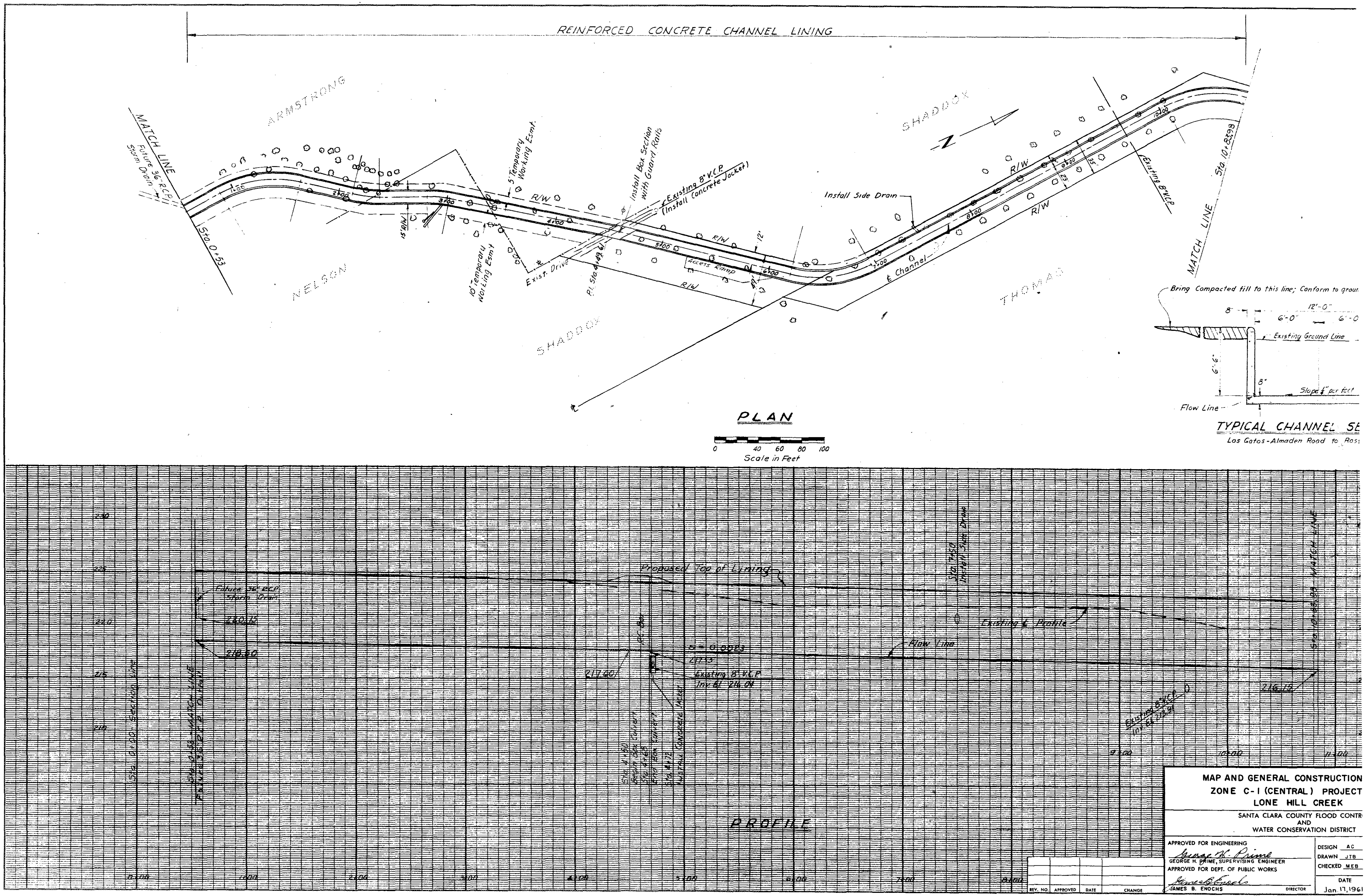
MAP AND GENERAL CONSTRUCTION PLA
ZONE C-1 (CENTRAL) PROJECT NO.
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

APPROVED FOR ENGINEERING George H. Prime GEORGE H. PRIME, SUPERVISING ENGINEER	DESIGN MEB DRAWN MRV & JTB CHECKED MEB	SCAL T. B. 35
APPROVED FOR DEPT. OF PUBLIC WORKS James B. Enochs JAMES B. ENOCHS, DIRECTOR	DATE Jan 17, 1961	L. B. 35 FILE

PLATE 10

PLATE 1-PLAN-PROFILE-F.A.S.
CLEARPRINT PAPER CO., S. F. CAL.
No. 1000H-1



MAP AND GENERAL CONSTRUCTION
ZONE C-1 (CENTRAL) PROJECT
LONE HILL CREEK

SANTA CLARA COUNTY FLOOD CONTR
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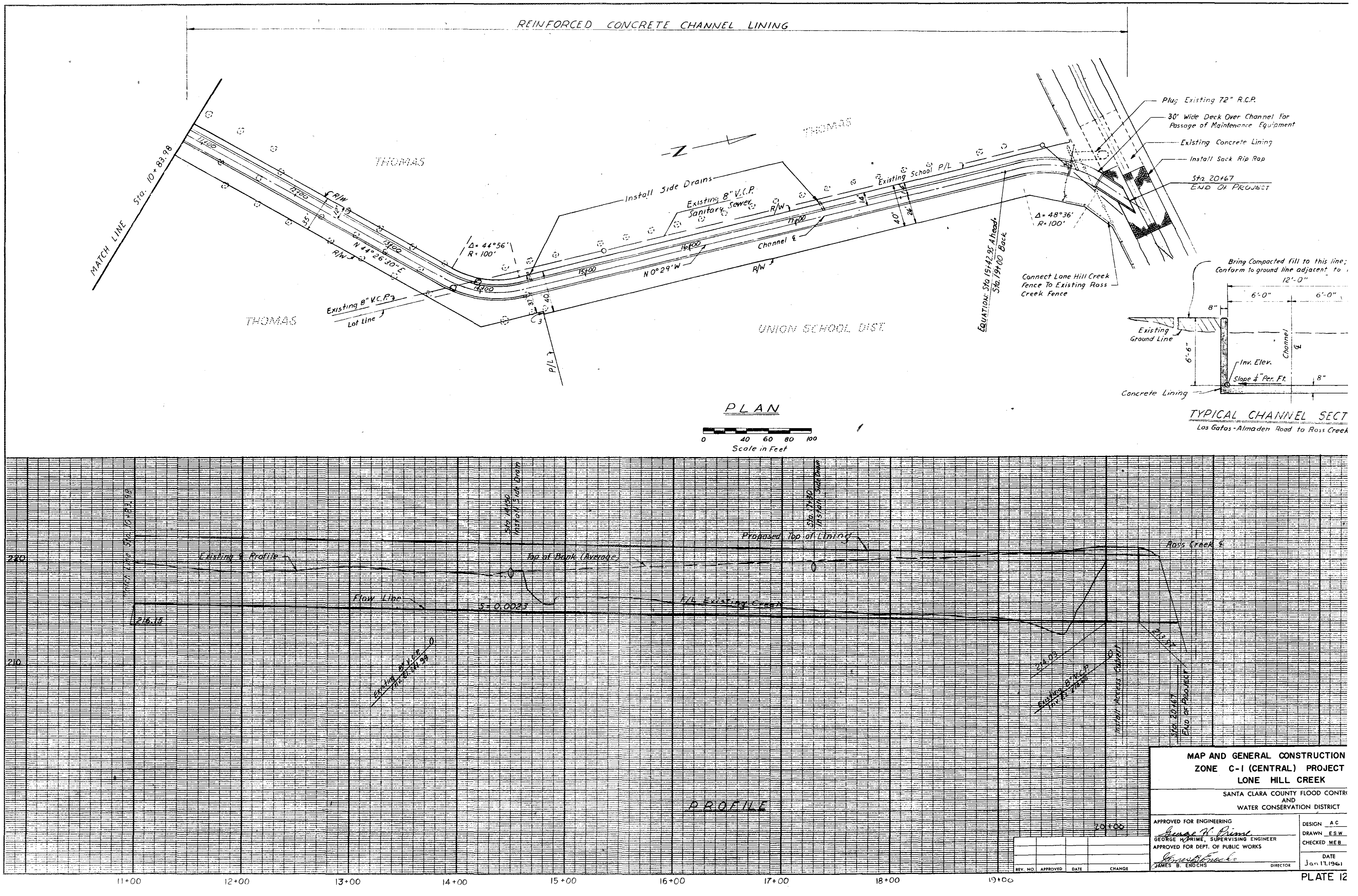
JAMES B. ENOCHS DIRECTOR

DESIGN AC
DRAWN JTB
CHECKED MEB
DATE
Jan. 17, 1961

PLATE II



REV. NO.	APPROVED	DATE	CHANGE

MAP AND GENERAL CONSTRUCTION
ZONE C-1 (CENTRAL) PROJECT
LONE HILL CREEK

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James B. Enochs
JAMES B. ENOCHS DIRECTOR

DESIGN A C
DRAWN E S W
CHECKED M E B
DATE
Jan 17, 1961

PLATE 12